```
      (FILE 'HOME' ENTERED AT 15:36:04 ON 27 APR 2007)

      FILE 'HCAPLUS' ENTERED AT 15:37:31 ON 27 APR 2007
L1         908497 S (MONOSACCHARIDE OR GLUCOS? OR FRUCTOS? OR RIBOS? OR DEOXYRIBO
L2          53973 S FLUORAT? OR HALOGENAT?
L3            702 S L1 AND L2

      FILE 'STNGUIDE' ENTERED AT 15:37:35 ON 27 APR 2007

      FILE 'REGISTRY' ENTERED AT 15:38:00 ON 27 APR 2007
                EXP DIFLUOROBENZYL/CN
                EXP DIETHYL(TRIFLUOROMETHYL)AMINE/CN
L4              1 S E3

      FILE 'STNGUIDE' ENTERED AT 15:39:03 ON 27 APR 2007

      FILE 'HCAPLUS' ENTERED AT 15:39:35 ON 27 APR 2007
L5              0 S L4 AND L3

      FILE 'STNGUIDE' ENTERED AT 15:39:36 ON 27 APR 2007

      FILE 'REGISTRY' ENTERED AT 15:40:01 ON 27 APR 2007
                EXP FLUOROMETHYL)AMINE

      INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
      AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
      CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
      DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:40:22 ON 27 APR 2007
                SEA ?FLUOROMETHYL(W)AMINE
               ---------
                0*  FILE ADISINSIGHT
                0*  FILE ADISNEWS
                0*  FILE AGRICOLA
                0*  FILE AQUASCI
                2   FILE BIOSIS
                0*  FILE BIOTECHABS
                0*  FILE BIOTECHDS
              114   FILE CAPLUS
                0*  FILE CEABA-VTB
                0*  FILE CONFSCI
                0*  FILE CROPB
                0*  FILE CROPU
                0*  FILE DDFB
                0*  FILE DDFU
                0*  FILE DGENE
                0*  FILE DRUGB
                0*  FILE DRUGMONOG2
                0*  FILE DRUGU
                0*  FILE EMBAL
                5   FILE EMBASE
                0*  FILE ESBIOBASE
                0*  FILE FOMAD
                0*  FILE FOREGE
                0*  FILE HEALSAFE
               28   FILE IFIPAT
                0*  FILE IMSDRUGNEWS
                0*  FILE IMSPRODUCT
                0*  FILE IMSRESEARCH
                0*  FILE LIFESCI
                2   FILE MEDLINE
                5   FILE NTIS
                0*  FILE NUTRACEUT
                0*  FILE OCEAN
```

```
=> file hcaplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.63       0.63

FILE 'HCAPLUS' ENTERED AT 15:37:31 ON 27 APR 2007
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FILE COVERS 1907 - 27 Apr 2007  VOL 146 ISS 19
FILE LAST UPDATED: 26 Apr 2007  (20070426/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s (monosaccharide or glucos? or fructos? or ribos? or deoxyribos? or sugar or
carbohydrate or saccharide)

         11586 MONOSACCHARIDE
        501084 GLUCOS?
         68666 FRUCTOS?
        117488 RIBOS?
          5443 DEOXYRIBOS?
        259907 SUGAR
        130250 CARBOHYDRATE
          9979 SACCHARIDE
L1      908497 (MONOSACCHARIDE OR GLUCOS? OR FRUCTOS? OR RIBOS? OR DEOXYRIBOS?
               OR SUGAR OR CARBOHYDRATE OR SACCHARIDE)

=> s fluorat? or halogenat?

           124 FLUORAT?
         53854 HALOGENAT?
L2       53973 FLUORAT? OR HALOGENAT?

=> s L1 and L2

L3         702 L1 AND L2

=> file stnguide

COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         2.60       3.23

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```

```
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> file registry
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.06       3.29

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provided by InfoChem.

STRUCTURE FILE UPDATES:   26 APR 2007  HIGHEST RN 933069-51-3
DICTIONARY FILE UPDATES:  26 APR 2007  HIGHEST RN 933069-51-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> exp difluorobenzyl/cn
E1            1     DIFLUOROBENZOPHENONE-HYDROQUINONE COPOLYMER/CN
E2            1     DIFLUOROBENZOPHENONE-HYDROQUINONE COPOLYMER, SRU/CN
E3            0 --> DIFLUOROBENZYL/CN
E4            1     DIFLUOROBIPHENYL/CN
E5            1     DIFLUOROBIS((-)-TRANS-1,2-CYCLOHEXANEDIAMINE)COBALT PERCHLOR
                    ATE/CN
E6            1     DIFLUOROBIS(B-PICOLINE)NICKEL/CN
E7            1     DIFLUOROBIS(H5-(TRIMETHYLSILYL)CYCLOPENTADIENYL)TITANIUM
                    /CN
E8            1     DIFLUOROBIS(H5-CYCLOPENTADIENYL)ZIRCONIUM/CN
E9            1     DIFLUOROBIS(H5-METHYLCYCLOPENTADIENYL)TITANIUM/CN
E10           1     DIFLUOROBIS(H5-PENTAMETHYLCYCLOPENTADIENYL)HAFNIUM/CN
E11           1     DIFLUOROBIS(H5-PENTAMETHYLCYCLOPENTADIENYL)TANTALUM(1+)
                    TETRAFLUOROBORATE/CN
E12           1     DIFLUOROBIS(H5-PENTAMETHYLCYCLOPENTADIENYL)TITANIUM/CN

=> exp diethyl(trifluoromethyl)amine/cn
E1            1     DIETHYL(TRIETHYLGERMYL)PHOSPHINE/CN
E2            1     DIETHYL(TRIETHYLPHOSPHINE)PLATINUM(II)/CN
E3            1 --> DIETHYL(TRIFLUOROMETHYL)AMINE/CN
E4            1     DIETHYL(TRIFLUOROMETHYL)ARSINE/CN
E5            1     DIETHYL(TRIFLUOROMETHYLSULFONYL)MALONATE/CN
E6            1     DIETHYL(TRIFLUOROSILYL)AMINE/CN
E7            1     DIETHYL(TRIMETHYLGERMYL)PHOSPHINE/CN
E8            1     DIETHYL(TRIMETHYLPLUMBYL)AMINE/CN
E9            1     DIETHYL(TRIMETHYLSILOXY)ALUMINUM/CN
E10           1     DIETHYL(TRIMETHYLSILYL)AMINE/CN
E11           1     DIETHYL(TRIMETHYLSILYL)GERMANE/CN
E12           1     DIETHYL(TRIMETHYLSILYL)PHOSPHINE/CN
```

```
=> s E3
L4            1 "DIETHYL(TRIFLUOROMETHYL)AMINE"/CN

=> file stnguide
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         5.85       9.14

FILE 'STNGUIDE' ENTERED AT 15:39:03 ON 27 APR 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> file hcaplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.06       9.20

FILE 'HCAPLUS' ENTERED AT 15:39:35 ON 27 APR 2007
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FILE COVERS 1907 - 27 Apr 2007  VOL 146 ISS 19
FILE LAST UPDATED: 26 Apr 2007  (20070426/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s L4 and L3

            16 L4
L5           0 L4 AND L3

=> file stnguide

COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         2.60      11.80

FILE 'STNGUIDE' ENTERED AT 15:39:36 ON 27 APR 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).
```

```
=> file registry
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.06      11.86

FILE 'REGISTRY' ENTERED AT 15:40:01 ON 27 APR 2007
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STRUCTURE FILE UPDATES:   26 APR 2007  HIGHEST RN 933069-51-3
DICTIONARY FILE UPDATES:  26 APR 2007  HIGHEST RN 933069-51-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> exp fluoromethyl)amine
E1            2     FLUOROMETHOXYTUNGSTEN/BI
E2       954350     FLUOROMETHYL/BI
E3            0 --> FLUOROMETHYL)AMINE/BI
E4           39     FLUOROMETHYLACET/BI
E5            2     FLUOROMETHYLACETAMIDE/BI
E6            1     FLUOROMETHYLACETAMILIDE/BI
E7            5     FLUOROMETHYLACETANILIDE/BI
E8            2     FLUOROMETHYLACETATE/BI
E9           27     FLUOROMETHYLACETO/BI
E10           2     FLUOROMETHYLACETON/BI
E11           1     FLUOROMETHYLACETONATO/BI
E12           1     FLUOROMETHYLACETONYL/BI

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.45      12.31

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
       DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:40:22 ON 27 APR 2007

67 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s ?fluoromethyl)amine
UNMATCHED RIGHT PARENTHESIS 'UOROMETHYL)AMINE'
The number of right parentheses in a query must be equal to the
```

number of left parentheses.

```
=> s ?fluoromethyl(w)amine
           0*  FILE ADISINSIGHT
           0*  FILE ADISNEWS
           0*  FILE AGRICOLA
           0*  FILE AQUASCI
           2   FILE BIOSIS
           0*  FILE BIOTECHABS
           0*  FILE BIOTECHDS
         114   FILE CAPLUS
           0*  FILE CEABA-VTB
           0*  FILE CONFSCI
           0*  FILE CROPB
           0*  FILE CROPU
           0*  FILE DDFB
           0*  FILE DDFU
           0*  FILE DGENE
           0*  FILE DRUGB
           0*  FILE DRUGMONOG2
           0*  FILE DRUGU
           0*  FILE EMBAL
           5   FILE EMBASE
           0*  FILE ESBIOBASE
           0*  FILE FOMAD
           0*  FILE FOREGE
  33 FILES SEARCHED...
           0*  FILE HEALSAFE
          28   FILE IFIPAT
           0*  FILE IMSDRUGNEWS
           0*  FILE IMSPRODUCT
           0*  FILE IMSRESEARCH
           0*  FILE LIFESCI
           2   FILE MEDLINE
           5   FILE NTIS
           0*  FILE NUTRACEUT
           0*  FILE OCEAN
           1   FILE PASCAL
           0*  FILE PCTGEN
           0*  FILE PHARMAML
           0*  FILE PROMT
          13   FILE SCISEARCH
           0*  FILE SYNTHLINE
           3   FILE TOXCENTER
          80   FILE USPATFULL
          18   FILE USPAT2
           0*  FILE VETB
           0*  FILE VETU
          17   FILE WPIDS
  65 FILES SEARCHED...
          17   FILE WPINDEX

  13 FILES HAVE ONE OR MORE ANSWERS,    67 FILES SEARCHED IN STNINDEX

L6    QUE ?FLUOROMETHYL(W) AMINE

=> file biosis
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 1.26      13.57

FILE 'BIOSIS' ENTERED AT 15:41:18 ON 27 APR 2007
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```

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 April 2007 (20070425/ED)

=> s ?fluoromethyl(w)amine
6897 ?FLUOROMETHYL
38465 AMINE
L7 2 ?FLUOROMETHYL(W)AMINE

=> d l7 1-2 ti abs bib

L7 ANSWER 1 OF 2 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Synthetically useful C-4 fluorinated building blocks bearing a quaternary stereocentre.
AN 1995:101986 BIOSIS <<LOGINID::20070427>>
DN PREV199598116286
TI Synthetically useful C-4 fluorinated building blocks bearing a quaternary stereocentre.
AU Arnone, Alberto; Bravo, Pierfrancesco [Reprint author]; Frigerio, Massimo; Salani, Giuliana; Viani, Fiorenza
CS C.N.R.-Centro Studio sulle Sostanze Org. Naturali, Dip. Chim. Politecnico Milano, Via Mancinelli 7, I-20131 Milano, Italy
SO Tetrahedron, (1994) Vol. 50, No. 47, pp. 13485-13492.
CODEN: TETRAB. ISSN: 0040-4020.
DT Article
LA English
ED Entered STN: 13 Mar 1995
Last Updated on STN: 13 Mar 1995

L7 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI ALPHA FLUOROMETHYLDEHYDRO ORNITHINE AND ALPHA FLUOROMETHYLDEHYDRO PUTRESCINE ANALOGS AS IRREVERSIBLE INHIBITORS OF ORNITHINE DECARBOXYLASE EC-4.1.1.17.
AB (E)-Dehydro analogs of α-(fluoromethyl)putrescine and -ornithine derivatives were synthesized and evaluated in vitro as irreversible inhibitors of a preparation of ornithine decarboxylase (ODC, EC 4.1.1.17) obtained from rat liver. The key step in the synthesis of (E)-α-(fluoromethyl)dehydroornithine (17) and -putrescine (14) was the addition of propenylmagnesium bromide to fluoroacetonitrile. The resulting unstable conjugated imine salt was reduced regioselectively in situ with NaBH4 or was quenched with a solution of NaCN to give the corresponding unsaturated α-(fluoromethyl) amine and α-amino nitrile, respectively. These were transformed into 17 and 14 via a 4-step sequence involving the following: phthaloyation of the amine function; allylic bromination of the methyl group; Gabriel reaction; and hydrolytic cleavage of the protective groups. (E)-α-(Difluoromethyl)dehydroornithine (10) and -putrescine (7) were prepared from ethyl tert-butyl 2-(difluoromethyl)-2-(2-propenyl)malonate and di-tert-butyl 2-(difluoromethyl)-2-(2-propenyl)malonate, respectively, via a sequence similar to that reported previously for the synthesis of the saturated analogs. Compounds 17, 14, 10 and 7 were much more potent enzyme-activated irreversible inhibitors of ODC than the corresponding saturated analogs. The increase in potency was particularly marked in the α-fluoromethyl series. The apparent dissociation constants (KI) and the times of half-inactivation of enzyme (τ50) at infinite concentration of inhibitors were 2.7 μM and 2.6 min for 17 and 42 μM and 0.2 min for 14. The KI and τ50 of the corresponding saturated analogs were 75 μM and 1.6 min for the ornithine derivative and 56 μM and 4.4 min for the putrescine derivative.
AN 1984:236956 BIOSIS <<LOGINID::20070427>>
DN PREV198477069940; BA77:69940

TI ALPHA FLUOROMETHYLDEHYDRO ORNITHINE AND ALPHA FLUOROMETHYLDEHYDRO PUTRESCINE ANALOGS AS IRREVERSIBLE INHIBITORS OF ORNITHINE DECARBOXYLASE EC-4.1.1.17.
AU BEY P [Reprint author]; GERHART F; VAN DORSSELAER V; DANZIN C
CS CENTRE DE RECHERCHE MERRELL INTERNATIONAL, 67084 STRASBOURG CEDEX, FRANCE
SO Journal of Medicinal Chemistry, (1983) Vol. 26, No. 11, pp. 1551-1556. CODEN: JMCMAR. ISSN: 0022-2623.
DT Article
FS BA
LA ENGLISH

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.04	18.61

FILE 'STNGUIDE' ENTERED AT 15:41:36 ON 27 APR 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.18	18.79

FILE 'HCAPLUS' ENTERED AT 15:43:15 ON 27 APR 2007

FILE COVERS 1907 - 27 Apr 2007 VOL 146 ISS 19
FILE LAST UPDATED: 26 Apr 2007 (20070426/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s ?fluoromethyl(w)amine

	44628	?FLUOROMETHYL
	277705	AMINE
L8	114	?FLUOROMETHYL(W)AMINE

=> s L3 and L8

L9	0	L3 AND L8

```
=> file stnguide

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.60      21.39

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06      21.45

FILE 'REGISTRY' ENTERED AT 15:43:34 ON 27 APR 2007
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STRUCTURE FILE UPDATES:   26 APR 2007  HIGHEST RN 933069-51-3
DICTIONARY FILE UPDATES:  26 APR 2007  HIGHEST RN 933069-51-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10537437fulorinator.str
```
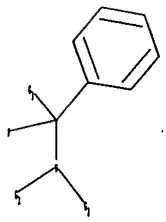
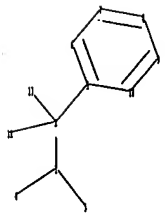





chain nodes :
1 2 3 4 11 13
ring nodes :
5 6 7 8 9 10
chain bonds :
1-2 1-3 1-4 2-5 2-11 2-13
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10
exact/norm bonds :
1-2 1-3 1-4 2-13
exact bonds :
2-5 2-11
normalized bonds :
5-6 5-10 6-7 7-8 8-9 9-10

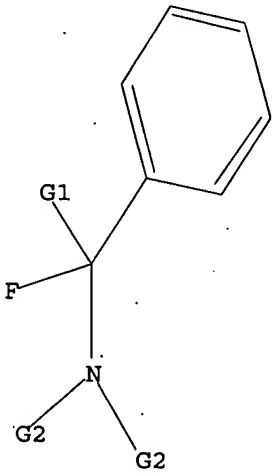
G1:H,Cl,Br,F,I

G2:CH3,CH2,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,Ph

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 13:CLASS

L10 STRUCTURE UPLOADED

=> d l10
L10 HAS NO ANSWERS
L10 STR



G1 H,Cl,Br,F,I
G2 Me,CH2,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,Ph

Structure attributes must be viewed using STN Express query preparation.

=> s l10
SAMPLE SEARCH INITIATED 15:43:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 217 TO ITERATE

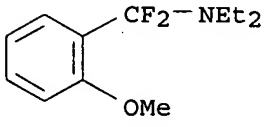
100.0% PROCESSED 217 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3457 TO 5223
PROJECTED ANSWERS: 2 TO 124

L11 2 SEA SSS SAM L10

=> d l11 scan

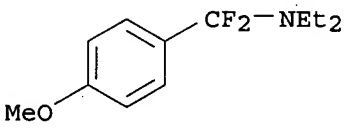
L11 2 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzenemethanamine, N,N-diethyl-α,α-difluoro-2-methoxy- (9CI)
MF C12 H17 F2 N O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L11 2 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzenemethanamine, N,N-diethyl-α,α-difluoro-4-methoxy-
MF C12 H17 F2 N O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s l10 sss full
FULL SEARCH INITIATED 15:44:17 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4361 TO ITERATE

100.0% PROCESSED 4361 ITERATIONS 22 ANSWERS
SEARCH TIME: 00.00.01

L12 22 SEA SSS FUL L10

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	193.55

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	193.61

FILE 'HCAPLUS' ENTERED AT 15:44:51 ON 27 APR 2007
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FILE COVERS 1907 - 27 Apr 2007 VOL 146 ISS 19
FILE LAST UPDATED: 26 Apr 2007 (20070426/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s L12 and L3

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            34 L12
L13          0 L12 AND L3
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=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	196.21

FILE 'STNGUIDE' ENTERED AT 15:44:52 ON 27 APR 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 20, 2007 (20070420/UP).

=> d his

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     (FILE 'HOME' ENTERED AT 15:36:04 ON 27 APR 2007)

     FILE 'HCAPLUS' ENTERED AT 15:37:31 ON 27 APR 2007
L1       908497 S (MONOSACCHARIDE OR GLUCOS? OR FRUCTOS? OR RIBOS? OR DEOXYRIBO
L2        53973 S FLUORAT? OR HALOGENAT?
L3          702 S L1 AND L2

     FILE 'STNGUIDE' ENTERED AT 15:37:35 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 15:38:00 ON 27 APR 2007
               EXP DIFLUOROBENZYL/CN
               EXP DIETHYL(TRIFLUOROMETHYL)AMINE/CN
L4             1 S E3

     FILE 'STNGUIDE' ENTERED AT 15:39:03 ON 27 APR 2007

     FILE 'HCAPLUS' ENTERED AT 15:39:35 ON 27 APR 2007
L5             0 S L4 AND L3

     FILE 'STNGUIDE' ENTERED AT 15:39:36 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 15:40:01 ON 27 APR 2007
               EXP FLUOROMETHYL)AMINE

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:40:22 ON 27 APR 2007
               SEA ?FLUOROMETHYL(W)AMINE
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              0*  FILE ADISINSIGHT
              0*  FILE ADISNEWS
              0*  FILE AGRICOLA
              0*  FILE AQUASCI
              2   FILE BIOSIS
              0*  FILE BIOTECHABS
              0*  FILE BIOTECHDS
            114   FILE CAPLUS
              0*  FILE CEABA-VTB
              0*  FILE CONFSCI
              0*  FILE CROPB
              0*  FILE CROPU
              0*  FILE DDFB
              0*  FILE DDFU
              0*  FILE DGENE
              0*  FILE DRUGB
              0*  FILE DRUGMONOG2
              0*  FILE DRUGU
              0*  FILE EMBAL
              5   FILE EMBASE
              0*  FILE ESBIOBASE
              0*  FILE FOMAD
              0*  FILE FOREGE
              0*  FILE HEALSAFE
             28   FILE IFIPAT
              0*  FILE IMSDRUGNEWS
              0*  FILE IMSPRODUCT
              0*  FILE IMSRESEARCH
              0*  FILE LIFESCI
              2   FILE MEDLINE
              5   FILE NTIS
              0*  FILE NUTRACEUT
              0*  FILE OCEAN
              1   FILE PASCAL
              0*  FILE PCTGEN
              0*  FILE PHARMAML
              0*  FILE PROMT
             13   FILE SCISEARCH
              0*  FILE SYNTHLINE
              3   FILE TOXCENTER
             80   FILE USPATFULL
             18   FILE USPAT2
              0*  FILE VETB
              0*  FILE VETU
             17   FILE WPIDS
             17   FILE WPINDEX
L6             QUE ?FLUOROMETHYL(W) AMINE
               ---------

     FILE 'BIOSIS' ENTERED AT 15:41:18 ON 27 APR 2007
L7           2 S ?FLUOROMETHYL(W)AMINE

     FILE 'STNGUIDE' ENTERED AT 15:41:36 ON 27 APR 2007

     FILE 'HCAPLUS' ENTERED AT 15:43:15 ON 27 APR 2007
L8         114 S ?FLUOROMETHYL(W)AMINE
L9           0 S L3 AND L8

     FILE 'STNGUIDE' ENTERED AT 15:43:18 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 15:43:34 ON 27 APR 2007
L10            STRUCTURE UPLOADED
L11          2 S L10
L12         22 S L10 SSS FULL
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     FILE 'STNGUIDE' ENTERED AT 15:44:22 ON 27 APR 2007

     FILE 'HCAPLUS' ENTERED AT 15:44:51 ON 27 APR 2007
L13            0 S L12 AND L3

     FILE 'STNGUIDE' ENTERED AT 15:44:52 ON 27 APR 2007

=> log hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06     196.27

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:45:02 ON 27 APR 2007

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PASSWORD:
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06     196.27

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06     196.27

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FILE LAST UPDATED: 26 Apr 2007  (20070426/ED)

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=> s l12
L14         34 L12

=> s l14 not py>2003
       4144435 PY>2003
L15         11 L14 NOT PY>2003

=> d l15 1-11 ti abs bib

L15  ANSWER 1 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Fluorination of thiocarbonyl compounds with bis(2-methoxyethyl)aminosulfur
     trifluoride (Deoxo-Fluor reagent): a facile synthesis of gem-difluorides
AB   A variety of thiocarbonyl derivs. (thioketone, thioester, thioamide,
     dithioester, and dithiocarbamate) were converted to the corresponding
     gem-difluorides in excellent yields on reaction with the fluorinating
     agent, bis(2-methoxyethyl)aminosulfur trifluoride (I), in the presence of
     SbCl3.  Thus, reacting PhC(S)Ph with I gave PhCF2Ph in 89% yield.
AN   2000:463617  CAPLUS <<LOGINID::20070427>>
DN   133:192747
TI   Fluorination of thiocarbonyl compounds with bis(2-methoxyethyl)aminosulfur
     trifluoride (Deoxo-Fluor reagent): a facile synthesis of gem-difluorides
AU   Lal, Gauri S.; Lobach, Elyse; Evans, Ann
CS   Air Products and Chemicals Inc., Allentown, PA, 18195-1501, USA
SO   Journal of Organic Chemistry (2000), 65(16), 4830-4832
     CODEN: JOCEAH; ISSN: 0022-3263
PB   American Chemical Society
DT   Journal
LA   English
OS   CASREACT 133:192747
RE.CNT  36    THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15  ANSWER 2 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   New deposition systems and processes for transport polymerization and
     chemical vapor deposition
AB   The described deposition systems are designed to accommodate new
     precursors and chemical processes used for transport polymerization and
chemical vapor
     deposition.  The systems consist primarily of a reactor, a liquid injector
     or gas mass flow controller, a cracker and a deposition chamber under
     sub-atmospheres pressure.  The cracker utilizes one or more types of
     energy, including heat, photons, and plasmas.  This invention is especially
     useful for preparing F-PPX [fluorinated poly(para-xylylenes)] and other
     fluorinated polymer thin films for intermetal dielec. (IMD) and interlevel
     dielec. (ILD) applications in the manufacture of integrated circuits with
     features < 0.25 μm in size.
AN   1999:299550  CAPLUS <<LOGINID::20070427>>
DN   130:312775
TI   New deposition systems and processes for transport polymerization and
     chemical vapor deposition
IN   Lee, Chung J.; Wang, Hui; Foggiato, Giovanni Antonio
PA   Quester Technology, Inc., USA
SO   PCT Int. Appl., 84 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 9922043           A1    19990506    WO 1998-US21754        19981015
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
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MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US	6086679	A	20000711	US 1997-958352	19971024
AU	9911888	A	19990517	AU 1999-11888	19981015
JP	2001521293	T	20011106	JP 2000-518129	19981015
PRAI US	1997-958352	A	19971024		
WO	1998-US21754	W	19981015		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Manufacture of fluorinated poly(p-xylylene) polymers for semiconductor devices
AB Fluorinated poly(p-xylylenes) (F-PPX) and fluorinated poly(p-fluoroxylylenes) (F-PPFX) are manufactured by (1) selecting as starting material a fluorinating agent (SF4, DAST) and compound YC(O)ArC(O)Y (Y = leaving group; Ar = phenylene, fluorine-containing phenylene), (2) processing the starting material to produce a tetrafluoro precursor, (3) further processing the precursor with transport polymerization or chemical vapor deposition
method, and (4) polymerizing the reactive intermediate into the fluorinated poly(p-xylylene) polymers. These polymers are used for the manufacture of low dielec. films with high thermal stability and are sufficiently strong to withstand planarization and polishing for the manufacture of integrated circuits.
AN 1999:297361 CAPLUS <<LOGINID::20070427>>
DN 130:325524
TI Manufacture of fluorinated poly(p-xylylene) polymers for semiconductor devices
IN Lee, Chung J.; Wang, Hui; Foggiato, Giovanni Antonio
PA Quester Technology, Inc., USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9921705	A1	19990506	WO 1998-US21753	19981015

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US	6140456	A	20001031	US 1997-957792	19971024
AU	9910878	A	19990517	AU 1999-10878	19981015
PRAI US	1997-957792	A	19971024		
WO	1998-US21753	W	19981015		

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Reactions of N,N-dialkylbenzamides with sulfur tetrafluoride. Formation of dialkyl-α,α-difluorobenzylamines
AB The KF-catalyzed reaction of amides R2NCOC6H4R1 (I; R = Me, Et, Pr, CH2CH2CF3; R1 = H, Me, OMe, Br, CF3, NO2) with SF4 gave amines R2NCF2C6H4R1. Substituent effects of the R1 in I (R = Me) is discussed.
AN 1984:209316 CAPLUS <<LOGINID::20070427>>

DN 100:209316
TI Reactions of N,N-dialkylbenzamides with sulfur tetrafluoride. Formation of dialkyl-α,α-difluorobenzylamines
AU Dmowski, Wojciech; Kaminski, Maciej
CS Inst. Org. Chem., Pol. Acad. Sci., Warsaw, 01224, Pol.
SO Polish Journal of Chemistry (1982), 56(10-12), 1369-78
CODEN: PJCHDQ; ISSN: 0137-5083
DT Journal
LA English
OS CASREACT 100:209316

L15 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Dialkyl-α,α-difluorobenzylamines and dialkyl(trifluoromethyl)amines - novel fluorinating reagents
AB The use of PhCF2NMe2 and CF3NEt2 as fluorinating reagents to replace OH groups in alcs. and carboxylic acids by F has been studied. The results, which are very variable, are compared with those reported for other fluoroamine reagents.
AN 1984:34109 CAPLUS <<LOGINID::20070427>>
DN 100:34109
TI Dialkyl-α,α-difluorobenzylamines and dialkyl(trifluoromethyl)amines - novel fluorinating reagents
AU Dmowski, Wojciech; Kaminski, Maciej
CS Inst. Org. Chem., Pol. Acad. Sci., Warsaw, 00-961, Pol.
SO Journal of Fluorine Chemistry (1983), 23(3), 219-28
CODEN: JFLCAR; ISSN: 0022-1139
DT Journal
LA English
OS CASREACT 100:34109

L15 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Synthetic methods and reactions. I. Seleniuum tetrafluoride and its pyridine complex. Convenient fluorinating agents for fluorination of ketones, aldehydes, amides, alcohols, carboxylic acids, and anhydrides
AB Selenium tetrafluoride is a general purpose, convenient fluorinating agent for a wide variety of compds., such as ketones, aldehydes, amides, alcs., carboxylic acids, and anhydrides. Addition of pyridine, which forms a complex with SeF4, in fluorination of alcs. generally prevents isomerization and allows preparation of primary fluorides.
AN 1974:81959 CAPLUS <<LOGINID::20070427>>
DN 80:81959
TI Synthetic methods and reactions. I. Seleniuum tetrafluoride and its pyridine complex. Convenient fluorinating agents for fluorination of ketones, aldehydes, amides, alcohols, carboxylic acids, and anhydrides
AU Olah, George A.; Nojima, Masatomo; Kerekes, Istvan
CS Dep. Chem., Case West. Reserve Univ., Cleveland, OH, USA
SO Journal of the American Chemical Society (1974), 96(3), 925-7
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English

L15 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Synthetic reactions of dimethylformamide. XIX. Preparation of α-difluorotrimethylamine and some of its reactions
AB COCl2 was passed through 73.1 g. HCONMe2 in 300 ml. CHCl3 in an icewater bath as long as CO2 was formed, the solution transferred to a polythene flask, stirred, and heated in a boiling water bath in vacuo to remove excess COCl2 and solvent. The flask was placed into an ice-salt freezing mixture and dry HF passed in with intermittent shaking until the increase in weight was about 300 g. Next day, excess HF was evaporated by heating to 65° the material transferred to an Fe vessel, and residual HF removed at 120°. The residue was distilled in vacuo and the obtained intermediate trihydrofluoride, C3H10F6N (15.5 g.), b30 80°, was distilled over anhydrous KF to give 7.4 g α,α-difluorotrimethylamine

(I), b. 48-50°, n2D0 1.3315. Similarly, 3 g. PhCONMe2 added under ice-cooling to a solution of 6 g. COCl2 in 20 mh CHCl3 and the solution treated as above gave 2.1 g. α,α-difluorobenzyldimethylamine, b. 70-90°, n2D0 1.4738. Solns. of I in organic solvents gave with BF3 etherate a crystalline hygroscopic precipitate, C3H7BF5N, m. 47-51°, ν 1670, 1737, 8071, and 3141 cm.-1 I (3.1 g.) treated with stirring and cooling with 1.2 g. BzOH and the mixture kept at room temperature with stirring 1 hr. gave 1.1 g. BzF, b. 50-5°, n20D0 1.4968, 3.1 g. I heated with 1.06 g. BzH 3 hrs. at 85° in an Fe tube yielded 0.95 g. α,α-difluorotoluene, b. 145-50°, n2D0 1.4572. BzNH2 kept with a solution of I in dioxane 20 min. at -5° gave 81.5% BzCN. When a stirred solution of 2',3'-O-isopropylidene-6-azauridine in HCONMe2 was treated with ice-cooling with I in HCONMe2 and the product analyzed by means of paper chromatography, only a spot corresponding to the formate could be detected.

AN 1963:474793 CAPLUS <<LOGINID::20070427>>
DN 59:74793
OREF 59:13802h,13803a-b
TI Synthetic reactions of dimethylformamide. XIX. Preparation of α-difluorotrimethylamine and some of its reactions
AU Arnold, Z.
CS Ceskoslov. Akad. Ved, Prague
SO Collection of Czechoslovak Chemical Communications (1963), 28(8), 2047-51
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English

L15 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Chemistry of carbonyl fluoride. I. Fluorination of organic compounds
AB Carbonyl fluoride reacts with carbonyl compds. such as cyclohexanone, benzaldehyde, and benzophenone to give the gem-difluorides, while HCONMe2 yields α,α-difluorotrimethylamine. Metal fluoride-catalyzed addition at the ethylenic bond in perfluoro olefins forms perfluoroacyl fluorides, while the C-N unsatd, compds. CF3N: CF2, PhNCO, and CF3CN give, resp., (CF3)2NCOF, PhN(COF)2, and CF3CF2NCO. The exptl. technique, infrared and nuclear magnetic resonance spectra are given.

AN 1963:66175 CAPLUS <<LOGINID::20070427>>
DN 58:66175
OREF 58:11243a-b
TI Chemistry of carbonyl fluoride. I. Fluorination of organic compounds
AU Fawcett, F. S.; Tullock, C. W.; Coffman, D. D.
CS E. I. du Pont de Nemours Co., Wilmington, DE
SO Journal of the American Chemical Society (1962), 84, 4275-85
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
OS CASREACT 58:66175

L15 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Fluorinated organic compounds
AB The title compds. can be used as chemical intermediates. Cyclohexanone 40, COF2 65, and HCONMe2 4-5 parts are placed in a reactor containing N, the reactor is closed, the mixture heated at 50° 12 hrs. under autogenous pressure, cooled, the volatile materials are removed, and the remaining liquid is distilled to give 1-fluorocyclohexyl fluoroformate (I), b27 59-63°, 52 parts. I 17, hexane 30-5, and BF3-etherate 4.8 parts are heated at 45-7° 3 hrs., the mixture is cooled, the upper phase separated, agitated with powdered NaF, the NaF filtered off, the filtrate evaporated, and the residue distilled through a fractionating column to give 1,1-di-fluorocyclohexane, b. 101-7°, n25D 1.3900-1.3895, 5.6 parts. Similarly prepared are Ph2CF2, b15 100-1°, n25D 1.5360-1.5368; PhCHF2, b15 35-6°; 4-Me2NC6H4CHF2; (FCH2)2O; PhCF3 and BzF;

F3C(CF2)2COF; F3C(CF2)6COF, b. 108-9°; FOC(CF2)3COF, b. 47-9°; FOC(CF2)2COF, b. 30-5°; 2-F3CC6H4COF and phthaloyl fluoride; Me(F2CH)NCOF and Me(HCO)NCOF; Me(MeCF2)NCOF, b. 97-100° and MeAcNCOF, b. 136-8°; F2CHNMe2, b. 47-51.5°; PhCF2NMe2, b. 63°; N-fluoroformyl-1,1-difluorohexamethyleneimine, b0-5 50°; and Me2NCF2NMe2, b. 101-3°.

AN 1963:39841 CAPLUS <<LOGINID::20070427>>
DN 58:39841
OREF 58:6752d-f
TI Fluorinated organic compounds
PA E. I. du Pont de Nemours & Co.
SO 11 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 909364		19621031	GB 1960-38526	19601109
	US 3213062		19651019	US 1959-852939	19591116
PRAI	US		19591116		

L15 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI The chemistry of sulfur tetrafluoride. II. The fluorination of organic carbonyl compounds
GI For diagram(s), see printed CA Issue.
AB cf. CA 54, 12862h. In many types of organic compds., the selective replacement of O atoms by F can be accomplished with SF4. The replacement reactions are performed by cooling the liquid or solid organic compound containing O in a Hastelloy-lined vessel under N to -78°, removing the N in vacuo, charging the vessel with the gaseous reactants (HF, BF3, SF4, etc.), heating the sealed vessel for the prescribed period, cooling, venting, and working up by the usual processes of distillation, recrystn., and sublimation (starting material, moles, moles SF4, reaction temperature, reaction time in hrs., product, % yield, and b.p. given): Et-CO2H, 0.60, 1.82, 150°, 8, EtCF3 (scrubbed with 40% aqueous KOH), 89, -; C6H13CO2H, 0.20, 0.65, 130°, 6, C6H13CF3, 80, 101° (n25D 1.3449); C11H23CO2H, 0.33, 2.00, 130°, 6, C11H23CF3, 88, 92°/12 mm. (n25D 1.3896); C17H35CO2H, 0.35, 2.13, 130°, 6, C17H35CF3, 93, 107°/3 mm. (m 28-30°, n25D 1.4148); Me3CCH2CHMeCH2CO2H, 0.19, 0.57, 120°, 6, Me3CCH2CHMeCH2CF3, 64, 121-2° (n25D 1.3657); 4-cyclohexylbutyric acid, 0.20, 0.60, 120°, 10, 1,1,1-trifluoro-4-cyclohexylbutane, 80, 172-3° (n25D 1.3987); CH2(CO2H)2, 030, 0.69, 40°, 16, CH2(COF)2, 70, 92-4°; CH2(CO2H)2, 0.40, 2.40, 150°, 8, CH2(CF3)2 (scrubbed with 40% aqueous KOH), 57, -; (CH2CO2H)2, 0.40, 2.40, 150°, 8, (CH2CF3)2 (scrubbed with 40% aqueous KOH), 41, -; (CH2CH2CO2H)2, 0.67, 2.23, 130°, 7, CF3(CH2)4CF3, 19, 99-101° (n25D 1.3519) [and 39% CF3(CH2)4CO2H, m. 36-8°]; HO2C(CH2)8CO2H, 0.15, 0.46, 120°, 6, CF3(CH2)8CF3, 27, 90-6°/ 20 (n25D 1.3519) [and CF3(CH2)8COF, 45%, b20 115-18°, and FOC(CH2)8COF, 21%, b20 144-6°]; HO2CCH2CH(CO2H)CH2CO2H, 0.07, 063, 130°, 10, O.CF2.CH2.C-(CF3).CH2.CF2, 20, 104-6°; BrCH2CHBrCH2CO2H, 0.53, 1.85, 140°, 8, BrCH2CHBrCH2CF3, 54, 69-75°/58 mm.; F2CHCF2CO2H, 0.15, 0.48 (and 0.03 mole BF3 as catalyst), 250°, 8, F2CHCF2CF3 (scrubbed with 40% aqueous KOH), 56, - (a run at 180° without catalyst gave only F2CHCF2COF); cyclobutane-1,1-dicarboxylic acid, 0.28, 2.32, 150°, 6, (CF3)2C.CH2.CH2.CH2, 43, 68-9°; CF2.CF2.CF2 CH CH2CO2H, 0.08, 0.30, 160°, 16, CF2.CF2.CF2.CHCH2CF3, 51, 67°; CH2:CHCO2H, 0.75, 2.00, 130°, 8, CH2:CHCF3 (scrubbed with 20 % aqueous KOH), 45, - 26°; CH2: CMeCO2H, 0.75, 2.00, 130°, 8, CH2:C(CF3)Me, 54, 6°; trans-(:CHCO2H)2, 0.55, 2.78, 130°, 9, trans-(:CHCF3)2, 95 (scrubbed with 20% aqueous KOH),

6°; (:CHCH2CO2H)2, 0.10, 0.55, 130°, 10, (:CHCH2CF3)2, 58, 90-1° (n25D 1.3131); CH2:C(CO2H)CH2CO2H, 0.62, 2.80, 160°, 10, CH2:C(CF3)CH2CF3, 26, 47-9° [and 41% CH2:C(COF)CH2CF3, b. 90-5°]; HO2CCH.CH2.CMe:CCO2H, 0.149, 0.89, 120°, 4, CF3CH.-CH2.CMe:CCF3, 31, 95-6° (and 30% CF3CH.CH2.CMe:-CCOF, b. 160-1°); HC.tplbond.CCO2H, 2.00, 2.10, 30-55°, 3, CH.tplbond.CCOF, 28, 22-3°; CH.tplbond.CCO2H, 0.27, 0.78, 120°, 3, CH.tplbond.CCF3 (scrubbed with buffer of pH 8.5 containing 450 g. NaH2PO4.H2O and 220 g. KOH in 4 l. H2O), 60, -; (.tplbond. CCO2H)2 (diluted with 60 g. methylcyclohexane), 0.395, 1.67, 70; 6, (.tplbond.CCOF)2, 51; 40-5°; (.tplbond.CCO2H)2, 0.125, 0.75 (and 0.016 mole TiF4 as catalyst), 170°, 8, (.tplbond.CCF3)2, 80, -; O(CH2CO2H)2, 0.50, 3.00, 130°, 7, O(CH2CF3)2, 35, 58-9° (and O.CH2.CF2.O.CF2.CH2, 14%, b. 91°, n25D 1.3262); EtO2C(CH2)4CO2H, 0.77, 2.00, 130°, 7, EtO2C(CH2)4CF3, 14, 57-9°/11 mm. (n25D 1.3725) [and 13% HO2C(CH2)4CF3, 110-11.5°/17 mm., 37-8.5°]; HOCH2CO2H, 0.75, 3.00,160° 5, FCH2CF3 (scrubbed with 20% aqueous KOH), 48, -26.5° (and 18% FCH2COF, b. 51°); HO2CCH2SO3H, 0.2, 0.69, 180°, 6, CF3CH2SO2F, 41, 105-7°; HO2C(CH2)10SO3H, 0.083, 0.41, 130°, 8, CF3(CH2)10SO2F, 42, 100-10°/0.10 mm.; HO2C(CH2)6CH(CO2H)SO3H, 0.195, 1.61, 150°, 8, CF3(CH2)6CH(CF3)SO2F, 33, 62-4°/0.15; BzOH, 0.25, 0.50, 120°, 6, PhCF3, 22, 100-1° (n25D 1.4133) (and 41% BzF, b. 155-6°); BzCO2H, 0.125, 0.51,100°, 6, PhCF3, 13, 45-55°/ 100 mm. (and 59% BzF, b100 92-4°); o-C6H4(CO2H)2, 0.10, 0.55, 120°, 6, o-C6H4(CF3)2, 43, 140-4° (and o-CF3C6H4COF, 23%, b. 175-8°); p-C6H4(CO2H)2, 0.10, 0.60, 120°, 6, p-C6H4(CF3)2, 76, 113-15° (n25D 1.3767) (and 3% p-CF3C6H4COF, b. 156°); 1,2,4,5-C6H2(CO2H)4, 0.07, 0.83, 150°, 6, 1,2,4,5-C6H2(CF3)4, 77; - (m. 73-4°); p-MeO2CC6H4CO2H, 0.44, 1.33, 130°, 7, p-MeO2CC6H4COF, 63, 120-1°/ 13 mm. (m. 69-70.5°); p-O2NC6-H4CO2H, 0.67, 2.12, 130°, 7, p-O2NC6H4CF3, 72, - (m. 41-3°); 4,1,3-ClC6H3(CO2H)2, 0.20, 1.20, 150°, 8, 4,1,3-ClC6H3(CF3)2, 62, 147° (n25D 1.4130); piperazine-2,3,5,6-tetracarboxylic acid, 0.035, 0.42, 150°, 6, 2,3,5,6-tetrakis(trifluoromethyl)piperazine, 20, 129°: BzF, 0.145, 0.30 (and 0.05 mole HF as catalyst), 120 °, 6, PhCF3, 41, 100° (n24.9D 1.4124); BzCl, 0.20, 0.80, 150 °, 8, BzF, 51, 149°; BzCl, 0.20, 0.50(and 0.25 mole HF), 120°, 6, m-ClC6H4CF3, 25, 138-9° (n25D 1.4459); Ac2O, 0.30, 0.20,. 300°, 10, MeCF3 (scrubbed with 10% aqueous NaOH), 50, -; maleic anhydride, 0.30, 0.60, 150°, 13, maleic acid difluoride, 71, 100-5°; dichloromaleic anhydride, 0.20, 0.47, 300°, 10, O.CF2.CCl:CCl.CF2, 46, 73-4°; phthalic anhydride, 0.20, 0.40, 180°, 18, o-C6H4(COF)2, 93, - (m. 40°); phthatic anhydride, 0.40, 1.60, 350°, 11, o-C6H4(CF3)2, 45, 143°; BzONa (in 100 cc. cyclohexane), 0.25, 0.50, 120°, 6, BzF, 48, 152-5°; PhC.tplbond.CCO2Na (in 100 cc. cyclohexane), 0.475, 0.52, 45°, 6, PhC.tplbond.CCOF, 71, 52-3°/2 mm.; BzOMe, 0.30, 0.60, 300°, 6, 55% PhCF3, 98° (and a trace of BzF, b. 151°); p-C6H4(CO2Me)2, 0.10, 0.60 (and 0.03 mole BF3), 130°, 8, p-C6H4(CF3)2, 16, 113-16° [and 26% p-CF3C6H4COF, b. 154-8°; 4% p-C6H4(COF)2, m. 122-4°, and a high yield of MeF]; HCO2Me, 0.10, 32 (and 0.05 mole HF), 200°, 6, -, - (high yields of MeF and CHF3 and a low yield of F2CHOMe); MeO2CC:CH.CF2.CF2, 0.20, 0.60 (and 0.03 mole BF3), 140°, 16, CF3C:CH.CF2.CF2, 10, 42-3°; BzNH2, 0.20, 0.41, 150°, 8, PhCF3, 13, 36-8°/64 mm. (n25D 1.4150); BzNHMe, 0.25, 0.50 (and 0.05 mole BF3), 60°, 4, BzF, 48, 90-4°/107°; BzNMe2, 0.25, 0.50, 130°, 6, PhCF2NMe2, 17, 70-1°/15 mm. (and 1.3% BzF, b13 50-5°); phthalimide, 0.20, 0.69 (and 0.045 mole BF3), 100°, 10, o-CF3C6H4COF, 58, 176-8°; AcH, 0.60, 0.75, 50°, 14, MeCHF2, 35, above -34°; C6H13CHO, 0.25, 0.37, 60°, 8, C6H13CHF2, 43,118-19° (n25D 1.3688); α-polyoxymethylene, 2.33, 2.30,